

## **AMENDMENTS TO THE SPECIFICATION**

***Please amend the paragraph beginning on page 43, line 23, through page 44, line 10 as follows:***

For the pulse compressing portion 321, for example, a commonly used vehicle having wavelength dispersion characteristics such as single mode optical fibers can be used. For the optical modulating portion 102, a directly optical modulation scheme in which the current injected to a semiconductor laser is directly modulated is used. That is to say, the pulse compressing portion 321 compresses the modulation information, using the interaction between the property (wavelength-sharpness chirp) that the optical frequency (wavelength) is varied and the wavelength dispersion in the optically intensity modulated signal generated by the directly optical modulation scheme, so that the pulse width of the pulse train that is output from the optical detecting portion 301 is reduced.